

---

## ARTICLES

---



## THE INFLUENCE OF ICT ON THE STRUCTURE OF TOURISM DISTRIBUTION SYSTEM

*Carmen Berné Manero*

Universidad de Zaragoza  
caberne@unizar.es

*Margarita García González*

Universidad San Jorge, Zaragoza  
margar@unizar.es

*M. Esperanza García Uceda*

Universidad de Zaragoza  
mariola@unizar.es

*José Miguel Múgica Grijalba*

Universidad Pública de Navarra  
mmugica@unavarra.es

### 1. INTRODUCTION

Along the last two decades, the rapid development of information and communication technologies (ICT), has brought pervasive and dramatic changes to the distribution functions and structure of marketing channels (Bennett and Lai, 2005), especially in the tourism distribution system (Sellers and Azorin, 2001).

Internet, as a «network of networks» (Law, 2000), has offered specific solutions to industries such as tourism. The access to direct communication between suppliers and customers has opened opportunities for new distribution channels and new business models that threaten traditional tourist intermediation (Saloner and Spence, 2002). The most significant expected changes resulting from the application of ICT in the tourism sector, were advanced by Poon (1993): (i) the occurrence of computerized central reservation systems as a key technology, business centre, (ii) the use of the ICT by all members in any sector, (iii) the creation of new bases for competition, and (iv) the greater impact of technological development in the area of sales and distribution. These predictions have been confirmed years later, with the widespread use of technological media in the marketing of tourism products and the growth of Internet sales of low cost carriers (FRONTUR, 2007). In 2008, the share of online sales in the travel industry reached 22,5% of the total (260 billion euros) (Marcussen, 2009).

The main objective of this work is to analyze and diagnose the structural change in the distribution of tourism in Spain caused by the intensive use of ICT from the perspective of the intermediaries involved.

## 2. CURRENT SITUATION AND PROSPECTS OF THE TOURISM DISTRIBUTION SYSTEM

The current structure of the tourism industry begins to set in the 90's, with the technological revolution of the sector, resulting in continuous changes in the structure and the *modus operandi* of the channels of distribution (McRae, 1994). The market growth in sales and quality (Christian, 2001) has allowed the emergence of direct channels and other new distribution alternatives (O'Connor and Frew, 2002) which have increased the competitiveness and the potential of business performance.

Internet allows travel suppliers to communicate directly with customers on equal terms (Law, Law and Wai, 2001), but its effectiveness to generate direct distribution channels depends on achieving a higher added value to the consumer that offered in the traditional channel (Sellers and Azorín, 2001, García de Madariaga, 2002). This is achieved by granting consumers with more autonomy as a participant in the process of production and service delivery, and reducing the presence of the tourism intermediary in the value chain (Law, Leung and Wong, 2004). As a result, some authors (eg Buhalis, 1998; Doherty, Ellis-Chadwick and Hart, 1999), foresee disintermediation in tourism, and others (eg. Bailey and Bakos, 1997) argue for a strengthening of the intermediation.

In general, some of the most relevant structural novelties are: the growth of new types of intermediaries, changes in the relationships between agents, the decline of hegemony of Global Distribution Systems (GDS), the transformation of shopping behaviour of the tourists, the reduction of the fees charged by intermediaries, and the standardization and expansion of formats (Valls, 1996).

## 3. RESEARCH DESIGN

The empirical research model and the questionnaire design have been based on the review of literature and its discussion, the opinions of experts on the Internet, and in-depth interviews with industry executives developed at national and international tourist forums and conferences. This qualitative analysis allowed us to identify the five basic dimensions of changes brought by ICT to distribution channels. The questionnaire included a set of questions for each of the dimensions aimed at determining the extent and goals of using ICT, and the consequences of their use. The questions were posed as statements in eleven-point Likert scale from 0 (strongly disagree) to 10 (strongly agree). Also, the questionnaire included variables to characterize the company. Then, the quantitative analysis is made from data gathered from of a survey addressed to different types of tourism intermediaries: Global Distribution Systems (GDS), Central Reservation Systems (CRS), Tour-Operators (TTOO), and Travel Agencies (AAVV). According to this type of stratification, 670 questionnaires were mailed to the intermediary outlets, and 132 valid questionnaires (a response rate of 20%) were finally completed and received.

#### 4. RESULTS AND CONCLUSIONS

Most of the outlets surveyed belong to a business group and use ICT for their business on a regular basis (97,1% use the Internet, and 92,2% the e-mail). This shows the importance of ICT in tourism development and its rapid expansion and adaptation in the daily management of intermediaries. Nearly 70% of ICT companies have been using ICT for more than six years.

Respondents consider that the use of ICT has allowed a significant improvement in internal management and competitiveness. The influence on the increase in the supply of new products and the quality of their services is also notable. So, the results show the existence of a general agreement among intermediaries surveyed about the remarkable influence that ICT have on the renewal of the structure of the tourism distribution system in Spain.

But, differences of opinion arise between the sector intermediaries concerning some issues:

(i) There are differences on perceived changes in the web of relationships between channel members, in positions of power, and participation in the value chain.

(ii) The use of ICT does not appear to exert a significant influence on improving the quality of the final tourism product and development of best practices in the sector. But CRS are those with a more positive opinion about it, probably justifying their own presence in the value creation chain.

(iii) Disintermediation is expressed in the channels at the expense of the presence of traditional retailers. CRS and TTAA, the more traditional, consider the matter further evidence against the GDS and tour operators. Probably, they see their position threatened.

(iv) There is little general concern among the members of the distribution channel on the growing share of the consumer participation through ICT. CRS perceive a negative effect on the contribution of the different levels of channel in the final product. These results come to draw a consumer with a still modest role in the processes of production and distribution sector, but must begin to be considered as a participant of the system and not a mere applicant and recipient of the service.

In summary, the emergence and development of ICT in the tourism sector is causing concern in the different levels of distribution channels as a consequence of the uncertainty in the medium term reflected in the differences in the responses of each level. Intermediaries seem to be faced with a challenge in the field of communication and distribution decisions that may try to address through direct and effective relationships with customers, ie, other intermediaries and final consumers.

